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10/591,781	09/06/2006	Anne Boer	TS1409 US	4517
23632	7590	03/26/2008	EXAMINER	
SHELL OIL COMPANY P O BOX 2463 HOUSTON, TX 772522463			LEUNG, JENNIFER A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/591,781	<b>Applicant(s)</b> BOER ET AL.
	<b>Examiner</b> JENNIFER A. LEUNG	<b>Art Unit</b> 1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 13 December 2007.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-8 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-8 and 12 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 06 September 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No./Mail Date 12-10-07; 9-6-06
- 4) Interview Summary (PTO-413)  
 Paper No./Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election of Group I, claims 1-18 and 12, in the reply filed on December 13, 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 9-11 and 13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 6, 7 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Garbo (US 2,526,651).

Regarding claim 1, Garbo (see FIGs. 1 and 2; see column 3, line 48 to column 4, line 61) discloses a filter system for use in a reactor **1**, the filter system comprising a filter (i.e. a replaceable filter element **6**) to separate fluid from a mixture of particulate matter (i.e., a catalyst powder) and a fluid, and having a filter housing (i.e., dome **11**) adapted to connect to the reactor (e.g., by welding) and adapted to receive the filter, wherein the filter **6** is retractable into the housing **11** (i.e., the filter **6** may be pulled into the housing **11**, after unfastening nuts **10**).

Regarding claim 2, the filter **6** is retractable through an aperture in the reactor (see FIGs.

1 and 2, wherein an opening, not labeled, it provided at the top of the reactor 1).

Regarding claim 4, the filter system (see FIG. 2) may further comprise an export conduit (i.e., a manifold 16, with discharge line 18) to deliver filtrate from the filter.

Regarding claim 6, the housing 11 has an outlet at its upper end, wherein the filter 6 is capable of being removed from the housing (e.g., for replacement) via the opening.

Regarding claim 7, the housing 11 has at least one sealing device (i.e., a suitable gasket 7; see column 4, lines 5-14; FIG. 1) to isolate the housing from the reactor.

Regarding claim 12, Garbo (see FIG. 1; see column 3, line 48 to column 4, line 26) discloses a reactor comprising: a shell (i.e., defining reactor 1); and a filter system comprising a filter (i.e. a replaceable filter element 6) and a filter housing (i.e., a dome 11) adapted to connect to the shell 1, wherein the filter 6 can be retracted from the shell into the housing 11 through an aperture (not labeled) located at the upper end of the shell 1 (i.e., after unfastening nuts 10).

Instant claims 1, 2, 4, 6, 7 and 12 structurally read on the apparatus of Garbo.

3. Claims 1-8 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Shukunobe et al. (US 4,965,051).

Regarding claim 1, Shukunobe et al. (FIGs. 1 and 2; column 5, line 51 to column 6, line 46) discloses a filter system for use in a reactor, the filter system comprising a filter (i.e., a solids outflow preventing screen 40) to separate fluid from a mixture of particulate matter (i.e., biocatalyst 36) and a fluid, and having a filter housing (i.e., the upper cylindrical section of portion 14) adapted to connect to the reactor (e.g., defined by chambers 12 and 13) and adapted to receive the filter 40, wherein the filter 40 is retractable into the housing (see dotted lines in FIG. 1; also, FIG. 2 shows the filter 40 fully retracted).

Regarding claim 2, the filter **40** is retractable through an aperture (i.e., defined by the opening at the upper end of cylinder portion **15**) in the reactor.

Regarding claim 3, the housing is detachably connected to the aperture (i.e., by bolts, not labeled, at flange **14C**; see FIG. 1; column 5, lines 57-61).

Regarding claim 4, the filter **40** has an export conduit to deliver filtrate from the filter (i.e., the inner tube **38**; see column 7, lines 56-63).

Regarding claim 5, the filter **40** is retracted into the housing by the export conduit **38** (see FIGs. 1, 2; column 6, lines 40-47).

Regarding claim 6, the housing has an outlet suitable for removing the filter **40** therefrom (i.e., portion **22** may be removed from portion **14** by detaching the clamp coupling **28**, and the filter **40** is capable of being removed through the open upper end of the cylindrical section of portion **14**; see FIG. 1).

Regarding claim 7, the housing has at least one sealing device (i.e., an o-ring, not labeled, provided on the funnel head opening **39**; see FIG. 2) to isolate the housing from the reactor.

Regarding claim 8, the filter **40** has a cap (i.e., the funnel head opening **39**) adapted to prevent settling of particulate matter on the filter (i.e., the slanted surface of element **39** inherently inhibits settling of particulate matter on the filter).

Regarding claim 12, Shukunobe et al. (FIGs. 1 and 2; column 5, line 51 to column 6, line 46) discloses a reactor comprising: a shell (i.e., walls defining chambers **12** and **13**); and a filter system comprising a filter (i.e., a solids outflow preventing screen **40**) and a filter housing (i.e., the upper cylindrical section of portion **14**) adapted to connect to the shell (i.e., at flange **14C**, using bolts), wherein the filter **40** can be retracted from the shell into the housing through an

aperture located at the upper end of cylinder 15.

Instant claims 1-8 and 12 structurally read on the apparatus of Shukunobe et al.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garbo (US 2,526,651).

Garbo discloses that the housing 11 "may be secured to the reactor 1 by welding." (see column 4, lines 12-14). Garbo, however, is silent as to the housing 11 being detachably connected to the reactor 1, such that the housing is detachably connected to the aperture at the top of the reactor. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to configure the housing in the apparatus of Garbo to be detachably connected to the reactor, on the basis of suitability for the intended use and absent a showing of unexpected results thereof, because making elements separable was held to be

obvious, *In re Duhlberg* 129 USPQ 148 (CCPQ 1961). For instance, one having ordinary skill in the art would have been motivated to configure the housing to be detachably connected and separable from the reactor, in the event that greater access to the components of the filter system for repair, assembly, replacement, etc. was necessary.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER A. LEUNG whose telephone number is (571)272-1449. The examiner can normally be reached on 9:30 am - 5:30 pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer A. Leung/  
Primary Examiner, Art Unit 1797